

(No Model.)

F. P. BIRLEY.

PAPER BOX.

No. 321,181.

Patented June 30, 1885.

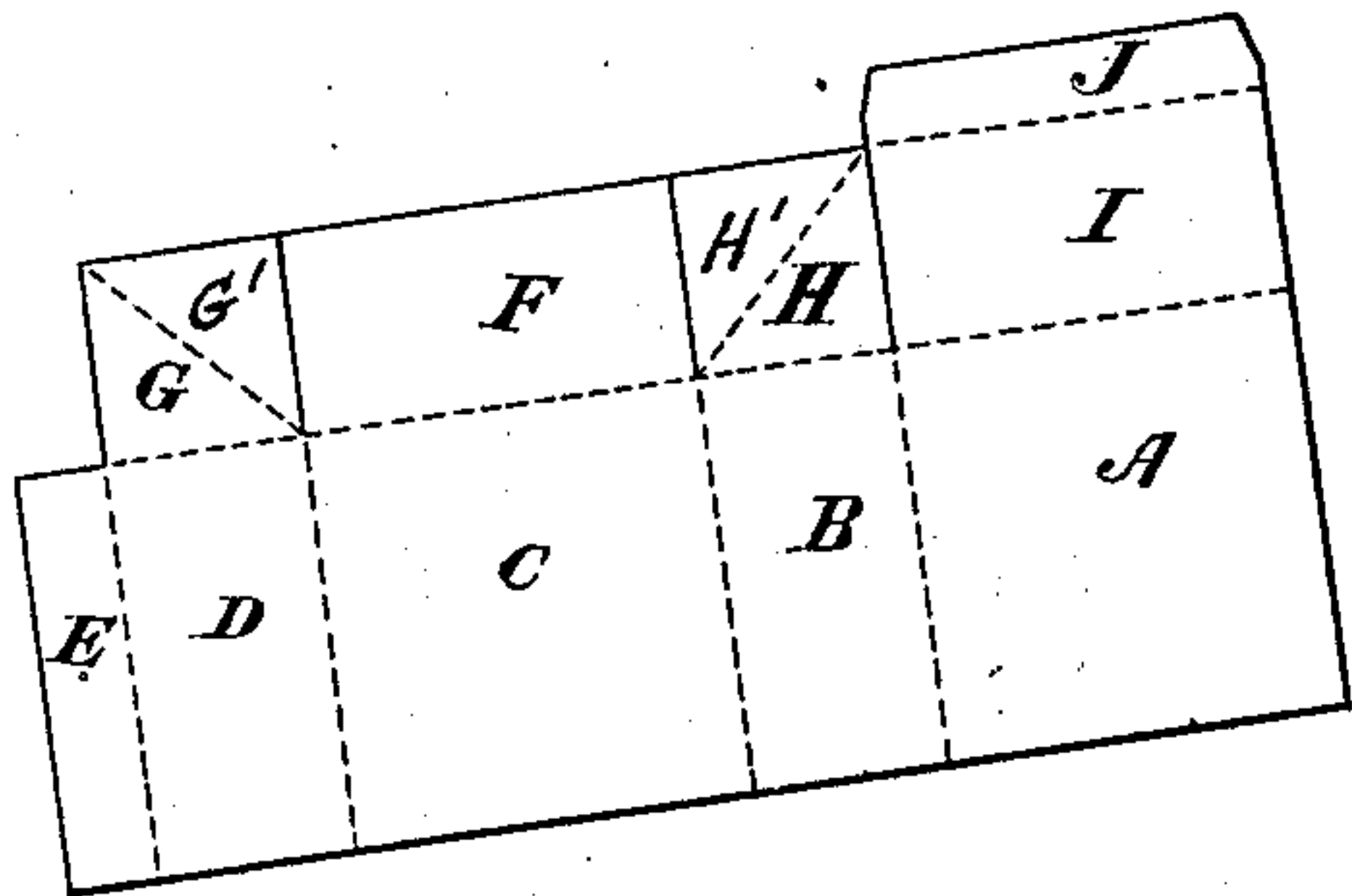


Fig. 1.

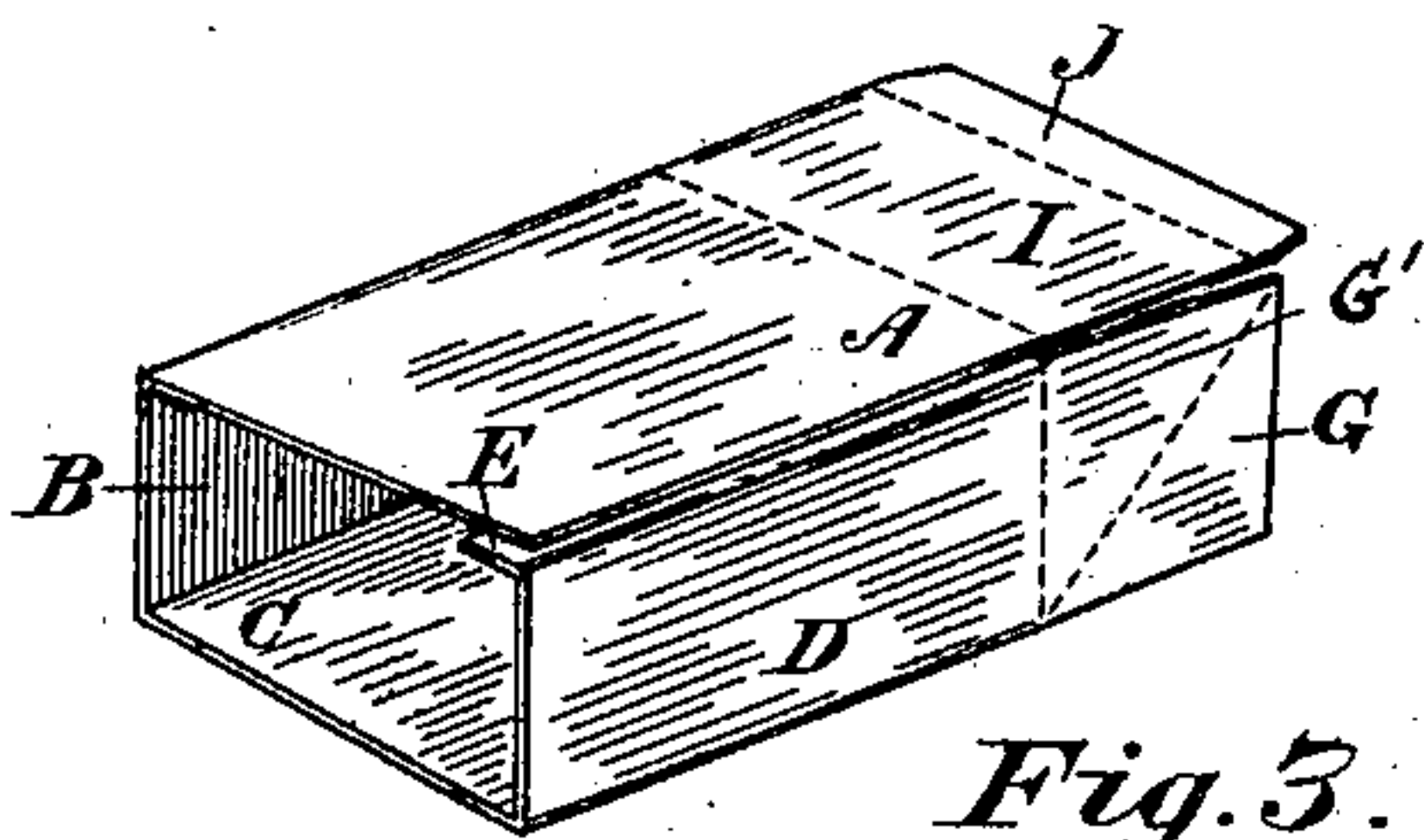


Fig. 3.

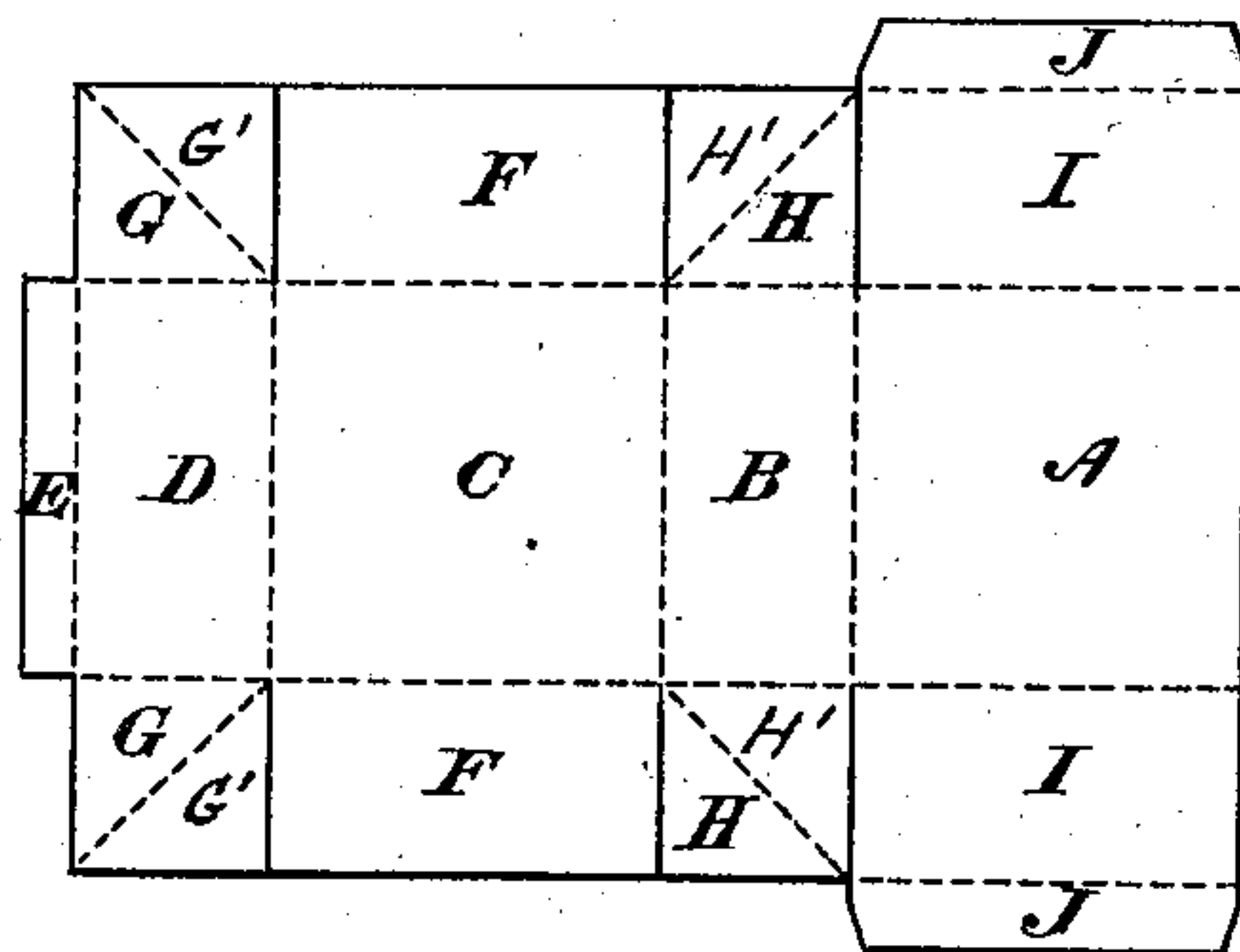


Fig. 2.

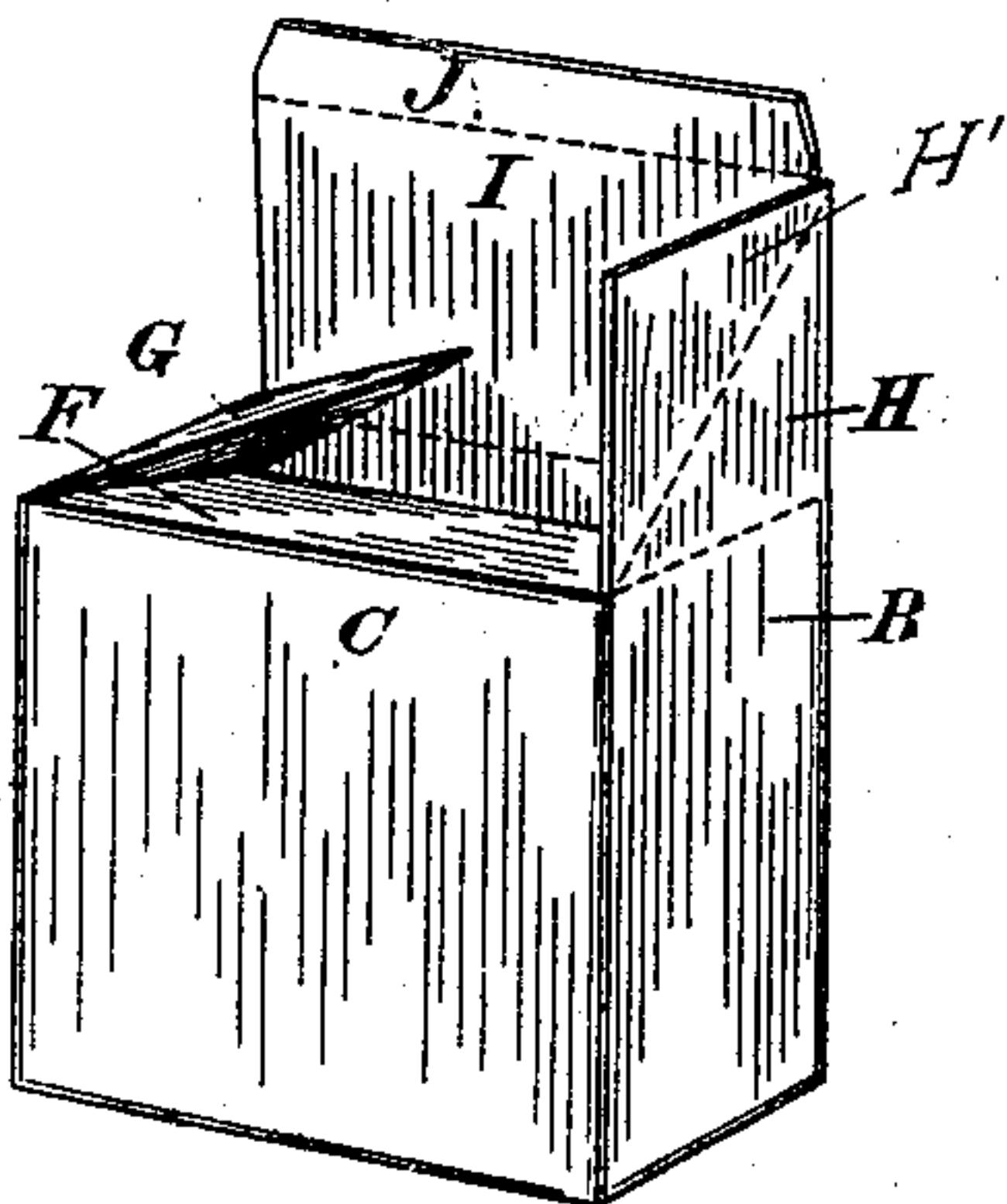


Fig. 4.

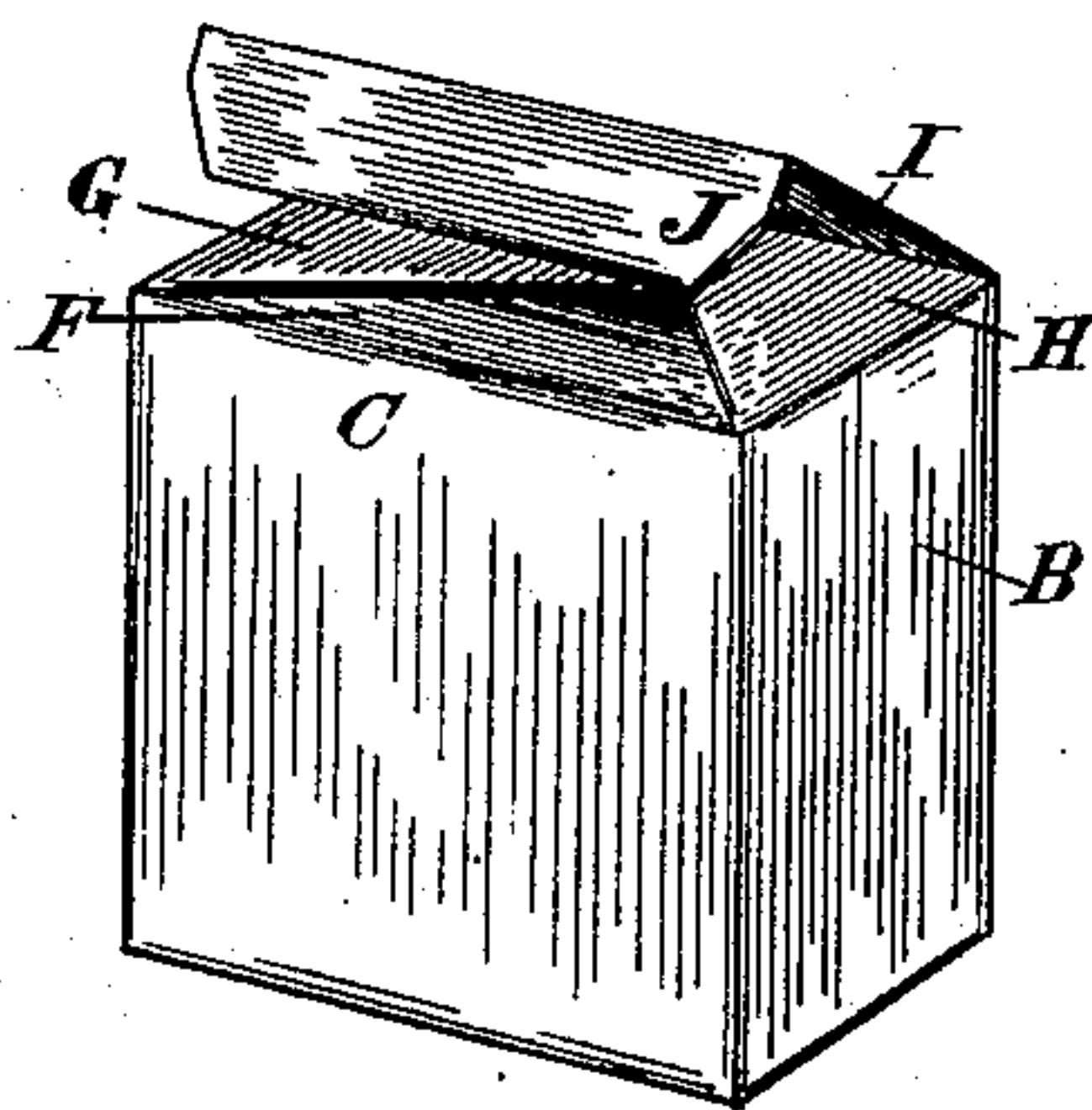


Fig. 5.

Witnesses.

W. J. Graham.

J. B. Fetherstonhaugh.

Inventor.

Frank P. Birley.

By Donald C. Ridout & Co.

Atty.

UNITED STATES PATENT OFFICE.

FRANK P. BIRLEY, OF TORONTO, ONTARIO, CANADA.

PAPER BOX.

SPECIFICATION forming part of Letters Patent No. 321,181, dated June 30, 1885.

Application filed May 8, 1885. (No model.) Patented in Canada April 23, 1885, No. 21,515.

To all whom it may concern:

Be it known that I, FRANK PEART BIRLEY, of the city of Toronto, in the county of York, in the Province of Ontario, Canada, manufacturer, have invented a certain new and useful Improvement in Paper Boxes, of which the following is a specification.

This invention relates to an improvement in the manufacture of paper boxes such as are made and folded from a single sheet cut to the proper shape and designed for the putting up of various articles of manufacture; and the object of the present invention is to so cut and fold the paper blank used in forming the box that the least possible waste of material shall be caused, and that the ends shall be so folded independent of each other that substantially the same form of blank may be used either for a single or a double ended box; and it consists in the method of cutting and folding the blank, substantially as shown in the accompanying drawings, and hereinafter more particularly explained.

Figure 1 represents a plan of the blank as it will be formed when designed for a single-ended box. Fig. 2 is a similar view of the blank when made for a double-ended box. Fig. 3 is a perspective view showing the blank folded to form the box, but without being glued together or the end flaps turned in. Fig. 4 is a perspective view showing the inside portion of the end turned in, one of the side flaps folded and turned under, its fellow flap standing before folding, and the outside or locking piece of the bottom likewise standing. Fig. 5 is a similar perspective view, but showing the flaps folded and bent down.

In Figs. 1 and 2 the solid lines indicate where the paper or other material is cut, while the dotted lines indicate the lines on which the parts are folded or bent.

In Figs. 1 and 2, A forms one side of the box; B, its adjoining side; C, the side of the box opposite to A, and D the side of the box opposite to B, while the flap E is designed to fit below and be pasted to the outer edge of the side A. Of course the same effect will be produced by placing the flap E on the outer edge of the side A, so that it would be pasted or gummed to the side D. The part

marked F forms the inside portion of the bottom, and the parts G G' and H H' form the side flaps, which parts G' H' are folded diagonally under the parts G H, respectively, and then folded down upon the inside portion, F, of the bottom. The outside portion, I, is then folded down, and the flap J bent and slipped under the flaps G and H, which forms a complete lock and secures the bottom together, and as any inside pressure on the portion F merely tends to grip the flap J more securely between it and the flaps G and H the pressure from the goods insures a solid bottom.

It will be noticed on reference to the drawings that the only difference between the blanks forming a single-ended or double-ended box is, that the parts marked G, F, H, I, and J are duplicated for a double-ended box.

Although the flap E is necessary in order to make a complete and really serviceable box, the advantages of my improved form of bottom would be secured even though the said flap E were dispensed with, in which case the box may be secured by pasting a piece of linen or other suitable material over the meeting edges of the sides A D; but I prefer to use the flap E. I therefore do not wish to confine my claim to the use of said flap; and it will further be seen that although it will be preferable (being easier) to fold the flaps G and H diagonally, they would perform their principal function were the piece of each which I fold under cut entirely away, and the bottom might also be made without even folding the flaps G H.

What I claim as my invention is—

1. As an article of manufacture, the herein-described box, consisting of the sides A, B, C, and D, with the flaps F, G, H, and I, and flap J, cut and folded substantially as described.

2. As an article of manufacture, the herein-described box, consisting of the sides A, B, C, and D, and flap E, with the parts F, G, H, and I, and flap J, cut and folded substantially as described.

Toronto, April 14, 1885.

F. P. BIRLEY.

In presence of—

CHARLES CLINTON BALDWIN,
F. BARNARD FETHERSTONHAUGH.